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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,010	02/07/2001	Keith R. Slavin	500841.01	5613

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EXAMINER
SAJOUS, WESNER

ART UNIT	PAPER NUMBER
2676	

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 June 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *26* is/are allowed.

6)☒ Claim(s) *1-3, 13-25, 27 and 28* is/are rejected.

7)☒ Claim(s) *4-12 and 29-36* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>07 February 2001</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/30/03</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

U.S. Patent and Trademark Office

PTOL-326 (Rev. 1-04)   **Office Action Summary**   Part of Paper No./Mail Date 5

DETAILED ACTION

Remarks

1.   This communication is responsive to the response filed on 6/6/05. Claims 1-36

are presented for examination.

The office action mailed on 3/21/05 was sent in error. Claims 1-36 of the instant

application was overlooked in light of claims 1-38 of a copending application belonging

to the same assignee. The Examiner apologizes for any inconvenience this may have

caused to your party.

Information Disclosure Statement

2.   The examiner has considered the information disclosure statement (IDS) filed on

5/30/03, including application serial number 09/760,173, filed on 5/29/01. A signed copy

of the PTO-1449 form is attached.

Drawings

3.   The drawings are objected to under 37 CFR 1.83(a). The drawings must show

every feature of the invention specified in the claims. Therefore, the "*cubic transition*

model between two of the input samples" in claims 3 and 28 must be shown or the

feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in

reply to the Office action to avoid abandonment of the application. Any amended

replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next

Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

5.   Claims 13-25 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Regarding claims 13, 16, 23, the phrase "may be", in line 2, renders the claim(s)

indefinite because the claim(s) include(s) elements not actually disclosed (those

encompassed by "may be"), thereby rendering the scope of the claim(s)

unascertainable. See MPEP § 2173.05(d).

Claims 14-15, 17-22, and 24-25 contain the problems of claims 13, 16, and 23,

by dependence, they are, therefore, similarly rejected.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 1-3, and 27-28 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hau (EP 706262) in view of Ohta (EP 300633).

Considering claim 1, Hau discloses a method for calculating output sample

values (DOUT2) from input graphics data (DIN1) having corresponding input sample

values (see fig. 1) comprises calculating from a sample set (DIN1) of input graphics

data an [angular] frequency value and determining whether the frequency value is in a

frequency range and where the frequency value is in a range, determining from the

sample set a model from which output sample values are calculated, [otherwise,

determining from the sample set a second model from which output sample values are

calculated]; and calculating output sample values from the model (*e.g., producing output

data samples using the input data samples by determining which frequency

characteristics to filter from the input samples to produce the output samples. See col.

4, lines 36-55. It is to be noted that if a number of frequency characteristics is provided

for comparison and selection in the resampling system (see col. 3, lines 31-38), the*

frequency value from the input data samples is therefore determined from a range of

frequency values. Thus, in Hau, it is intrinsic, not the least imperative, that the

frequency value from the input graphics data (or data samples) to determine the output

sample values be calculated from a determining range of frequency values. With

regards to the input graphics, it is noted that since the data samples so calculated in

Hau is implemented for displaying pictures inn a television screen, the processed

samples for television display, therefore, encompass graphics data. The Applicant

needs to clarify what the set of input graphics data or how the graphics data is

implemented in the resampling system)).

[*The "otherwise" clause in the claim is treated as –or- and is not given much weight, since the aim of the*

claim is to use frequency data from input samples to calculate output sample values-a feature that is

clearly defined by Hau, as indicated above.]

It is noted that although Hau discloses substantial features of the invention, Hau

fails to teach using set of samples to calculate an angular frequency for a sine-wave

model that is used to output sample values.

Ohta discloses using set of samples (10, fig. 1) to calculate (104) an angular

frequency (e.g., amplitude value $v(\tau)$ and/or $S(f)$) for a sine-wave model (see fig. 5 or fig.

2b) that is used to output sample values (18, fig. 1). See page 3, line 40 to page 4, line

25.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify the resampling circuit of Hau to include using set

of samples to calculate an angular frequency for a sine-wave model that is used to

output sample values, in the same conventional manner as taught by Ohta (see figs. 2b

and 5); so that time base errors can be corrected by implementing digital signal

processing without any analog signal processing. See Ohta's page 5, lines 35-37.

As per claim 2, Hau, at fig. 7A or 7B, discloses a non-sinusoidal transition model.

As per claim 3, Hau fails to teach a cubic transition model between two of the

input samples.

Ohta discloses a cubic transition model between two of the input samples (140

and 141). See fig. 5.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify the resampling circuit of Hau to include a cubic

transition model between two of the input samples, in the same conventional manner as

taught by Ohta (see fig. 5), so that time base errors can be corrected by implementing

digital signal processing without any analog signal processing. See Ohta's page 5, lines

35-37.

The invention of claim 27 contains features that are analogous to the limitations

recited in claim 1. As the features of claim 1 have been found obvious over the

teachings of Hau and Ohta, it is readily apparent that the applied prior art performs the

underlying elements. As such, the limitations of claim 27 are rejected under the same

rationale as claim 1.

Claim 28 contains the limitations of claim 3, it is therefore rejected under the

same rationale.

Allowable Subject Matter

8.   Claims 4-12, and 29-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, because the prior art fail to teach calculating an output sample values from input graphics data having corresponding sample values wherein the frequency range comprises arcos (-0.95) $\subseteq \omega \subset$ arcos (0.9), as recited in claims 4 and 29; and calculating the angular frequency ω using the algorithm defined in claims 5-12 and 30-36.

9.   Claims 13-25 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action, because the prior art of record fails to teach a method of calculating a transition model from input graphics data having corresponding sample values for resampling purposes in the manner recited in the claims.

10.   Claim 26 is allowed over the prior art because albeit Hau and Ohta discloses substantial features of the invention, Hau and Ohta fail to teach providing resample output values calculated from sample values of input pixel samples by using a resampling circuit that comprises a non-sine-wave model resampling circuit coupled to the sine-wave model resampling circuit to receive the sample values of the sample set when the frequency value ω is outside of the frequency range, the non-sine-wave model resampling circuit determining from the sample set [is] a non-sinusoidal model from which the resample output sample values are calculated for calculating output sample values from the non-sinusoidal model.

Conclusion

11.   The prior art of record considered pertinent to Applicant's disclosure are as recited in the PTO-892 form.

12.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sajous Wesner whose telephone number is 571-272-7791. The examiner can normally be reached on Mondays thru Fridays between 10:30 and 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wesner Sajous

8/16/05